

The following papers were read and accepted by the Committee for publication in ENTOMOLOGICAL NEWS:

THE GENUS *OCHTHERA*.

By WILLIAM MORTON WHEELER, Ph.D.

(University of Chicago.)

The genus *Ochthera* is noteworthy in several particulars. It is the most striking, and, probably for that reason, the oldest genus in the family Ephydriidæ, having been founded by Latreille as early as 1804. The most conspicuous character of the flies of this genus is the peculiar development of the fore legs, which have taken on a raptorial function. The fore coxa is greatly lengthened and thickened and very mobile, the femur enormously enlarged, and the tibia, which is curved and provided with a strong spine at its tip, may be closed up tightly against the bulging face of the femur. This is essentially the same structural modification which is met with in the fore legs of the Mantidæ (Orthoptera), Mantispidæ (Neuroptera), Nepidæ, Belostomidæ, Naucoridæ (Hemiptera) and in the second maxillipeds of the stomatopod *Squilla* among the Crustacea. Undoubtedly these are true cases of parallelism, the legs having assumed the same raptorial form under the stress of similar conditions, but independently in the different orders.

The genus *Ochthera* is poorly represented in Europe (two species) as compared with North America. Besides *O. mantis* Degeer, which is common to both continents, Loew described (Monog. I, pp. 159-162) three species from this country. Prof. Williston has discovered another species from St. Vincent, W. I.* A description is here given of a sixth species with notes on some of the known forms:

Ochthera lauta n. sp. ♀.—Length 3.7 mm.; length of wings 3.5 mm. Antennæ of the usual form, black; clypeus very small; face very narrow, silvery-white, with scarcely a tinge of yellow; in the middle just below the antennæ a shining black, rather low and rounded protuberance, from which a median black groove extends nearly to the clypeus. On either side of this median groove there is a somewhat broader and curved lateral groove, and another of a similar trend running close to the orbit. On either side a series of eight linear black depressions radiates mesially

* Prof. Williston has generously loaned me his type specimens of this species. I am also indebted to Mr. W. A. Snow for several specimens of *O. mantis* from different localities.

from the orbital groove. Front and occiput shining metallic blue, the former with a small velvety black spot on either side near the upper orbit. Cheeks, thorax and posterior pleuræ metallic silvery, not very shining; anterior pleuræ shining black, with a steel-blue reflection. The dorsal surface of the thorax with three longitudinal ferruginous vittæ of about equal length, but not reaching to the metallic silvery scutellum. Ground color of the abdomen shining coppery, somewhat dimmed by a layer of whitish dust. Fore coxæ blue-black on the outer faces, with a thick patch of golden yellow dust at their bases; femora and tibiæ of all the legs dark steel-blue dusted with white; hind tibiæ decidedly arcuate. Inner surfaces of the raptorial fore legs shining black with little dust; tarsi red, except the last joint, which is black, and the considerably swollen first joint of the hind tarsi, which is concolorous with the femora and tibiæ. Wings hyaline, with light yellow veins, only the costal vein darker where it rounds the tip of the wing; halteres pale yellow.

One specimen taken in sweepings near Milwaukee, Wis., June 23, 1895.

This species is readily distinguished from other described forms by the conspicuous, ferruginous bands on the thorax, and by the peculiar facial markings, although in the latter character it resembles *O. exculpta* Loew from Cuba. The radiating or-

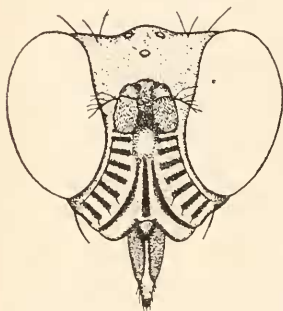


Fig. 1.—Face of *Ochthera lauta* n. sp.

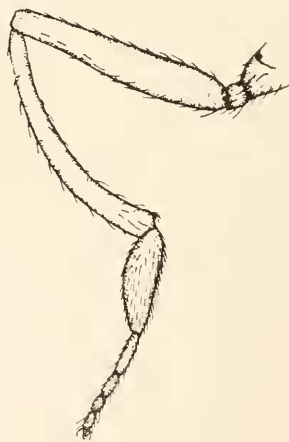


Fig. 2.—Hind leg of *Ochthera lauta* n. sp.

bital grooves, however, are replaced by “impressed, rather coarse dots” in the Cuban species, which, besides a marked difference in the color of the front and legs, has the first joint of the hind tarsi “very little swollen.”

Ochthera mantis Degeer.

This species is widely distributed over the United States. Specimens from the following localities have come under my notice: Connecticut (S. W. Williston), Wisconsin, Illinois and Nebraska (W. M. Wheeler), Lusk, Wyoming (W. A. Snow and W. M. Wheeler); Little Wind River, Wyoming (W. M. Wheeler); Douglas County, Kansas (University of Kansas coll.); California (Baron). Although the color of the face varies in the different specimens—a fact which Loew also observed—they all belong to one species. In some individuals the three ferruginous bands of *O. lauta* are represented by faint, opaque, brown stripes. *O. mantis* is the largest of our species, many specimens measuring 5 mm.

O. cuprilineata Williston.—The three thoracic bands are metallic-violet bordered with cupreous; the middle of the face has a rather low and somewhat wrinkled metallic-green protuberance with a depression in its middle, but otherwise the face is smooth and yellow, resembling the face of the preceding species.

O. tuberculata Loew.—One specimen from Milwaukee, Wis., agrees well with Loew's description. The polished steel blue outer surface of the upper half of the middle tibia is a character which I do not find in my specimens of *O. mantis*. The first joint of the hind tarsi is considerably swollen, like that of *O. lauta*.

The North American species of *Ochthera* may be tabulated as follows:

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| 1. Thorax with ferruginous or metallic vittæ | 2. |
| Thorax without, or with very indistinct vittæ | 3. |
| 2. Face with impressed black lines radiating from an orbital groove. | |
| Face without such impressed lines | <i>lauta</i> n. sp. |
| Face with black furrows and dots | <i>cuprilineata</i> Williston. |
| 3. Face with black furrows and dots | <i>exculpta</i> Loew. |
| Face without black furrows and dots | 4. |
| 4. First joint of hind tarsi but little swollen | <i>mantis</i> Degeer. |
| First joint of hind tarsi considerably swollen | 5. |
| 5. Face broad, tarsi black | <i>rapax</i> Loew. |
| Face narrow, tarsi red | <i>tuberculata</i> Loew. |